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纳西族传统药用植物“雪山当归”的名实考证*

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摘要: “雪山当归”在云南丽江地区是纳西族传统药用植物, 但长期以来其与伞形科其它植物在名称上混淆在一起。作者通过查考文献、野外调查及查阅相关标本, 对“雪山当归”原植物来源进行考证。结果表明纳西族传统药用植物“雪山当归”是芳香棱子芹 (*Pleurospermum aromaticum* W. W. Sm.), 而不是《中国植物志》里的雪山当归 (*Angelica forrestii* Diels)。相关研究结果表明 *A. forrestii* 已被并入归叶棱子芹 (*Pleurospermum angelicoides* (Wall.) Benth. ex C. B. Clarke) 中。

关键词: 雪山当归; 纳西传统药用植物; 名实考证
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A Taxonomic Review of ‘Xueshandanggui’, a Traditional Naxi Herbal Medicine Plant of Lijiang Prefecture

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Abstract: ‘Xueshandanggui’ is a traditional medicinal plant of the Naxi minority people of Lijiang prefecture, northwestern Yunnan. However, this Chinese name has often been confused with other Apiaceae species. In this study, the descriptions of ‘Xueshandanggui’ are clarified and the taxonomic confusion of related species is discussed. The results showed that the traditional Naxi medicinal plant ‘Xueshandanggui’ was *Pleurospermum aromaticum* W. W. Sm., but the plant described as ‘Xueshandanggui’ in *Flora Reipublicae Popularis Sinicae* is actually *Angelica forrestii* Diels. The latter was not the plant that the Naxi refer to as ‘Xueshandanggui’. Other related studies have shown that *A. forrestii* was a mistreatment, and this has now been combined with *Pleurospermum angelicoides* (Wall.) Benth. ex C. B. Clarke.

Key words: ‘Xueshandanggui’; Naxi traditional herbal medicine plant; Taxonomic review

Lijiang prefecture is located in the northwest of Yunnan, on the southeastern edge of the Tibetan plateau. This area is a biodiversity hotspot of East Asia (Myers *et al.*, 2000). Many plants found around Lijiang city are used by the local minority people such as the Naxi for traditional herbal medicines. More than 500 herbal medicine plants have been recorded in the Checklist of Seed Plants of Lijiang Al-

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pine Botanic Garden (Wang *et al.*, 2007), and over 200 traditional Naxi herbal medicine plants were recorded in the Photograph of Specimens of Yulong Materia Medica (Zeng, 1959).

'Xueshandanggui' is a traditional medicinal plant of the Naxi people, they use its roots to treat a variety of problems such as pain relieve in the lumbar region of the back and legs. It is also used to treat altitude sickness and enriching of the blood. In the *Flora Reipublicae Popularis Sinicae*, *Angelica forrestii* Diels is described as 'Xueshandanggui' and is recorded from Jade Dragon Snow Mountain, Lijiang (Yuan, 1992), but *A. forrestii* is not the plant that the local people use for medicine. After checking both living and herbarium material of the two plants, they have significant morphological differences even though they share the same Chinese name and both belong to the Apiaceae (Umbelliferae). Therefore, it is necessary to have the plant name corrected for 'Xueshandanggui' to clarify this nomenclatural confusion of the two species.

1 Methods

The records and drawings of 'Xueshandanggui' have been studied, as well as living plant material of 'Xueshandanggui' in the field, herbarium specimens (Herbaria E, G, BM, NAS, CIB, KUN and PE) of related species from the same locality were also checked and compared.

2 Results and discussion

According to the references, *A. forrestii* was first published by Diels (1912) based on the specimen *G. Forrest 2580* (Fig. 1) collected from eastern flank of Jade Dragon Snow Mountain, near Lijiang, Yunnan, China. The holotype had no fruits, and the leaves and its habit characters resembled those of *Angelica*, so Diels determined it to be a *Angelica*. When Yuan (1992) edited the genus *Angelica* in *Flora Reipublicae Popularis Sinicae*, the species was cited without a picture, and it was not in the key either, i. e. it was regarded as 'little-known' (Pimenov and Kljuykov, 1999). He followed Diels's treatment, and retained the species in the genus *Angelica*, as well as giving it the Chinese name 'Xueshandanggui' (he cited wrongly that the type was G. Forrest 1580, it should actually have been G. Forrest 2580; and also so wrongly cited the first publication date as 1929, when it should been 1912). But after comparing the type materials of *A. forrestii* with other sympatric Apiaceae (Umbelliferae), especially by studying the fruit structure, its fruit is distinct from that of *Angelica* (deep groove in the endosperm on the commissural side, subequal thin marginal and dorsal ribs, exocarp composed of rather enlarged cells), and it was considered a member of the genus *Pterocyclus* Klotzsch (Pimenov and Kljuykov, 1999). Actually the name of *A. forrestii* was corrected in 1928 by H. Wolff as *Pterocyclus angelicoides* (Wall. ex DC.) C. B. Clarke. on the type sheet (*Pterocyclus* has not gained widespread acceptance, and in current taxonomic literature is often included within a broadly conceived *Plrurospermum*) (Pan and Watson, 2005). By investigating the type specimens and other collections of *Pleurospermum angelicoides* from the same area (Fig. 2), many scholars suggested that *A. forrestii* was a wrong identification, and that it should be a synonym of *P. angelicoides* (information from the type sheets). Here we also agree such treatment, *A. forrestii* show its identity with *P. angelicoides*, the combination is commonly accepted now (Pan and Watson, 2005).

Based on the field observation, we concluded that the herb that Naxi use as 'Xueshandanggui' is not a member of the genus *Angelica* (Fig. 3). The fruit of the plant is oblong and ribs all broadly thick-winged, vittae 2–3 in each furrow, 6–7 on commissure. All of these characters indicate that it should be a member of the genus *Pleurospermum* (Fu and Ho, 1979). After carefully examining living plants in the field and comparing the herbarium types (G. Forrest 6188) (Fig. 4), we found that this plant showed high identity with the description and the type specimen of *Pleurospermum aromaticum* W. W. Sm., it can

be concluded that this plant was *P. aromaticum*. The type specimens of *P. aromaticum* were also collected from western flank of Jade Dragon Snow Mountain in 1910 by G. Forrest (Fig. 4, G. Forrest 6188).

Therefore, we conclude that the traditional Naxi medicinal plant 'Xueshandanggui' is *P. aromaticum*. The treatment of 'Xueshandanggui' in *Flora Reipublicae Popularis Sinicae* as '*A. forrestii*' is a misidentification, and *A. forrestii* has been combined into *P. angelicoides*, which is not the plant that the Naxi used as 'Xueshandanggui' for medicine.

Pleurospermum aromaticum W. W. Smith in Notes Bot. Gard. Edinb. **8**: 341. 1915; Hand.-Mazz. Symb. Sin. **7**: 710. 1933; Shan Ren Hwa & Sheh Men Lan in Fl. Reip. Pop. Sin. **55** (3): 231. 1992; Pan Zehui & Mark F. Watson in Z. Y. Wu & P. H. Raven, Fl. China **14**: 45. 2005.

Distribution: SW Sichuan, Xizang, NW Yunnan, the type was collected from Lijiang, Yunnan. It grows near ditches in forests, open dwarf scrub, alpine meadows; 3 800–4 100 m.

Specimens examined: China, Yunnan: G. Forrest 6188 (Holotype, E, Isotype, PE); Yang Jing sheng 63-2373 (KUN); Zhao Zhiguang 30418 (PE). China, Sichuan: Hengduan Mountain team 4022, 4044 (PE). China, Xizhang: Xizhang medicinal plant team 4511, 2042 (PE).

Pleurospermum angelicoides (DC.) Benth. ex C. B. Clarke, in Hook. f. Fl. Brit. Ind. **2**: 703 (1879); C. Norman J. Bot. (London) **67**: 246 (1929); Cannon, in Hara & Williams, Enum. Flow. Pl. Nepal **2**: 188 (1979); Fu Kuntsun & Ho Yehchi, in Fl. Reip. Pop. Sin. **55** (1): 152, tab. 76, figs. 1–4 (1979); Wu Zhengyi (ed.) Index Fl. Yunnan.: 922 (1984); Farille *et al*. Candollea **40** (2) 523 (1985); Pan Zehui, in Fl. Xizang. **3**: 426, fig. 165

Fig. 1 Holotype of *Angelica forrestii* (G. Forrest no. 2580, E)

Fig. 2 Holotype of *Pleurospermum angelicoides* (N. Wallich 548, E)

Fig. 3　The plant that the Naxi people used as 'Xueshandanggui' for medicine
A: whole plant; B: fruits; C: positive of leaves; D: opposite of leaves

(1986); P. K. Mukh. & Constance Umbell. India: 188 (1993). ——*Hymenolaena angelicoides* DC. Prodr. **4**: 245 (1830). ——*Pterocylus angelicoides* (DC.) Klotzsch in Klotzsch & Garcke, Bot. Ergebn. Reise Prinz Waldemar v. Preussen: 150, tab. 47 (1862). ——*Ligusticum angelicoides* Wall. Cat. 548. 1828. ——*Angelica forrestii* Diels in Not. Bot. Gard. Edin. **5**: 289. 1929; Yuan CC in Fl. Reip. Pop. Sin. **55** (3): 59. 1992.

Distribution: SW Sichuan, SE Xizang, NW Yunnan [Bhutan, India, Kashmir, Myanmar, Nepal, Sikkim], the type of *Pleurospermum angelicoides* was collected from India, and the type of *Angelica forrestii* was collected from Lijiang, Yunnan. It grows on the Stream banks in forests, alpine meadows; 3 000–4 000 m.

Specimens examined: China, Yunnan: G. Forrest 2580 (Holotype, E); Zhongdian team 1349, 3190 (PE); Feng Guomei 23569 (KUN); Zhang Aoluo 100189; Qinghai-Tibet team 2944 (CIB); H. Hara, S. Kurosawa & H. Ohashi, 6846 (PE); Pan Zehui *et al.* 84–203; Hengduan Mountain team, 01043 (PE). China, Sichuan: Pan Zehui *et al.*, 986 (NAS); Pu Fading & Yao Gan 287 (NAS). China, Xizhang: Li Bosheng *et al.* 13669, 13484 (PE). India: N. Wallich, 548 (Isosyntype of *Hymenolaena angelicoides*, G, BM, E).

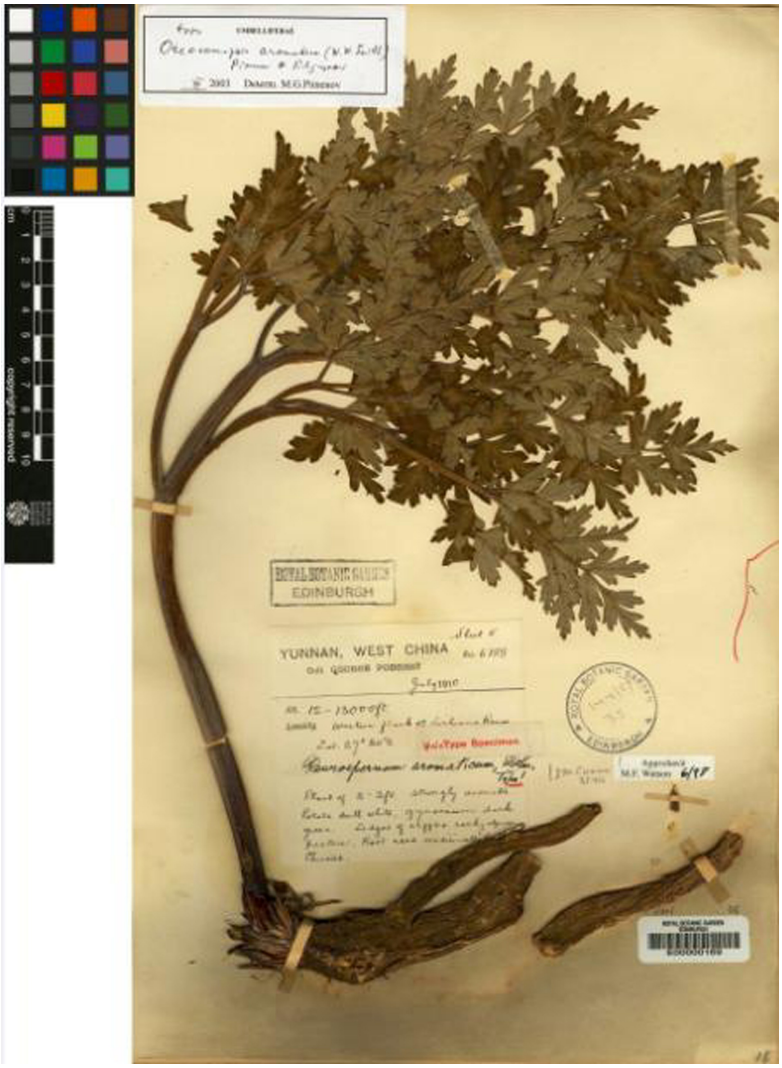

Fig. 4 Holotype of *Pleurospermum aromaticum* (G. Forrest no. 6188, E)

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